

Appl. No. : 10/789,437
Filed : February 26, 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A method of constructing at least one intermediate frame of an image between first and second frames, the method comprising:

identifying a plurality of points having at least one related characteristic in at least one of the first and second frames based, at least in part, on numerical differences between values associated with a plurality of pixels in the first and second frames;

determining if at least one of the plurality of points has changed its position between the first frame and the second frame;

associating the at least one of the plurality of points that has changed its position with at least a first pixel of the plurality of pixels in the first frame and a second pixel of the plurality of pixels in the second frame; and

determining a relationship between a position of the first pixel and a position of the second pixel; and

defining a position of at least one intermediate pixel in the at least one intermediate frame.

2. (Original) The method of Claim 1, further comprising determining in the at least one intermediate frame the position of the at least one of the plurality of points that has changed its position based at least in part on the relationship between the positions of the first and second pixel.

3. (Original) The method of Claim 2, further comprising identifying a plurality of points that remained substantially without motion between the first and second frames.

4. (Original) The method of Claim 3, further comprising defining position of pixels of substantially the entire intermediate frames comprising points in motion and substantially stationary points.

5. (Original) The method of Claim 1, wherein determining the relationship between the position of the first and second pixels comprises deriving at least one coefficient in a motion equation.

Appl. No. : 10/789,437
Filed : February 26, 2004

6. (Original) The method of Claim 1, wherein the motion equation determines position of the at least one of the plurality of points undergoing at least one of spinning, rotational, and translational motion.

7. (Original) The method of Claim 6, wherein the position of the first and second pixels are identified at least in part by x and y coordinates.

8. (Original) The method of Claim 1, wherein identifying the plurality of points having at least one related characteristic comprise defining an object.

9. (Original) The method of Claim 8, wherein defining an object comprises defining at least a portion of a physical object in the image as viewed by an eye of an observer.

10. (Original) The method of Claim 1, wherein identifying the plurality of points having at least one related characteristic comprises determining whether the plurality of points experience at least one of spinning, rotational, and translational motion.

11. (Original) The method of Claim 1, wherein determining if at least one of the plurality of points has changed its position comprises identifying a point having a non-zero difference between a pixel position in the first frame and a substantially same position pixel in the second frame.

12. (Original) The method of Claim 11, further comprising identifying a plurality of objects in the first and second frames.

13. (Original) The method of Claim 1, further comprising transmitting the first and second frames from a transmitter to a receiver.

14. (Original) The method of Claim 3, further comprising identifying in the intermediate frame pixel information for the plurality of points that remained unchanged based at least on one of (a) pixel information in the first frame, (b) pixel information in the second frame, (c) pixel information about the intermediate frame provided from a source of the first and second frames, and (d) averaging pixel information of the first and second frames.

15. (Original) The method of Claim 14, wherein the pixel information for the plurality of points that remained unchanged comprises at least one of color and gray scale values.

16. (Original) The method of Claim 15, wherein the pixel information for one of the plurality of points comprises substantially the same color information as that of at least one

Appl. No. : 10/789,437
Filed : February 26, 2004

pixel located in a position in the first frame that is associated with substantially the same position of the one of the plurality of points in the first frame.

17. (Original) The method of Claim 1, further comprising selectively requesting a source transmitter to communicate information about at least one pixel in the intermediate frame.

18. (Original) The method of Claim 1, wherein determining the relationship between a position of the first pixel and a position of the second pixel comprises at least in part identifying non-zero differences between color or gray scale information of the first pixel and a third pixel located at substantially the same position in the second frame.

19. (Original) The method of Claim 1, further comprising communicating at least the first and second frames from a source telephone to a destination telephone via a wired or wireless telephone network.

20. (Currently amended) A system for constructing at least one intermediate frame of an image between first and second frames, the system comprising:

an identifier circuit configured to identify a plurality of points having at least one related characteristic in at least one of the first and second frames based, at least in part, on numerical differences between the first and second frames;

a compare circuit configured to determine if at least one of the plurality of points has changed its position between the first frame and the second frame; and

a processing circuit configured to associate the at least one of the plurality of points that has changed its position with at least a first pixel in the first frame and a second pixel in the second frame, and further configured to determine a relationship between a position of the first pixel and a position of the second pixel and to define a position of at least one intermediate pixel in the at least one intermediate frame.

21. (Original) The system of Claim 20, wherein the processing circuit is configured to determine in the at least one intermediate frame the position of the at least one of the plurality of points that has changed its position based at least in part on the relationship between the positions of the first and second pixel.

22. (Original) The system of Claim 21, wherein the identifier circuit is configured to identify a plurality of points that remained substantially without motion between the first and second frames.

23. (Original) The system of Claim 22, wherein the processing circuit is configured to define position of pixels of substantially the entire intermediate frames comprising points in motion and substantially stationary points.

24. (Original) The system of Claim 20, wherein the processing circuit is configured to derive at least one coefficient in a motion equation.

25. (Original) The system of Claim 20, wherein the motion equation determines position of the at least one of the plurality of points undergoing at least one of spinning, rotational, and translational motion.

26. (Original) The system of Claim 25, wherein the position of the first and second pixels are identified at least in part by x and y coordinates.

27. (Original) The system of Claim 20, wherein the identifier circuit is configured to define points of an object.

28. (Original) The system of Claim 27, wherein the identifier circuit defines at least a portion of a physical object in the image as viewed by an eye of an observer.

29. (Original) The system of Claim 20, wherein the identifier circuit determines whether the plurality of points experience at least one of spinning, rotational, and translational motion.

30. (Original) The system of Claim 20, wherein the compare circuit is configured to identify a point having a non-zero difference between a pixel position in the first frame and a substantially same position pixel in the second frame.

31. (Original) The system of Claim 30, wherein the identifier circuit is configured to identify a plurality of objects in the first and second frames.

32. (Original) The system of Claim 20, further comprising a transmitter configured to send the first and second frames to a receiver.

33. (Original) The system of Claim 22, wherein the processing circuit is configured to identify in the intermediate frame pixel information for the plurality of points that

Appl. No. : 10/789,437
Filed : February 26, 2004

remained unchanged based at least on one of (a) pixel information in the first frame, (b) pixel information in the second frame, (c) pixel information about the intermediate frame provided from a source of the first and second frames, and (d) averaging pixel information of the first and second frames.

34. (Original) The system of Claim 33, wherein the pixel information for the plurality of points that remained unchanged comprises at least one of color and gray scale values.

35. (Original) The system of Claim 34, wherein the pixel information for one of the plurality of points comprises substantially the same color information as that of at least one pixel located in a position in the first frame that is associated with substantially the same position of the one of the plurality of points in the first frame.

36. (Original) The system of Claim 20, wherein the processing circuit is configured to selectively request a source transmitter to send information about at least one pixel in the intermediate frame.

37. (Original) The system of Claim 20, wherein the processing circuit is configured to identify non-zero differences between color or gray scale information of the first pixel and a third pixel located at substantially the same position in the second frame.

38. (Original) The system of Claim 20, further comprising a source telephone configured to send at least the first and second frames to a destination telephone via a wired or wireless telephone network.

39. (Original) The system of Claim 20, wherein a processor comprises the identifier, compare, and processing circuits.

40. (Currently amended) The method of Claim 1, wherein the numerical ~~value relate to differences comprise differences between numerical values relating to~~ color information associated with a the plurality of pixels in the first frame and in the second frame.